

A wide-angle photograph of the Salton Sea. The foreground is filled with hundreds of white birds, likely gulls, scattered across the calm, light blue water. In the middle ground, there are low, dark brown hills or dunes. The background features a range of large, rugged mountains under a clear, pale blue sky. The overall scene is serene and expansive.

# **Salton Sea Restoration**

## **Overview of Past Work**

# Overview

## ■ Introduction

- Who We Are
- How We Work Together

## ■ Past Restoration Efforts

- Long term restoration planning
- Science
- Adaptive management-pilot projects
- Public outreach

# Outline

## ■ Introduction

- **Who We Are**
- How We Work Together

## ■ Past Restoration Efforts

- Long term restoration planning
- Science
- Adaptive management-pilot projects
- Public outreach

# Introduction

- Bureau of Reclamation
- Science Office
- Salton Sea Authority



# Bureau of Reclamation- Background



- 1960s-1992
- PL 102-575
- PL 105-372



# Bureau of Reclamation-Role



- Program management, co-management
- Engineering expertise
- Tribal trustee
- Hydrology-river master
- Water treatment expertise



# Science Office-History

*Science Office*



- 1998 SS Act
  - Research Management Committee
  - Science SubCommittee
- Science Office–2001
  - Science Advisory Committee



# Science Office-Role

## *Science Office*



- Independent
- Linked to management
- Linked to research & university communities
- Provides integration of diverse science products and research direction, technical oversight
- Does not undertake research directly

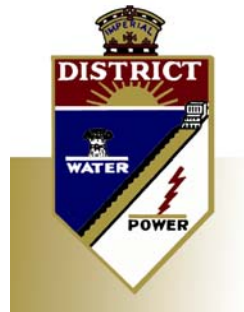


# Science Advisory Committee

- Cal EPA
- Redlands Institute
- Resources Agency (CA DFG)
- San Diego State University
- UC Riverside
- USGS



# Salton Sea Authority- Members



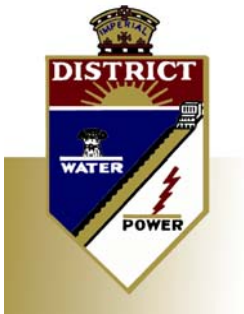
# Salton Sea Authority- Members



TORRES MARTINEZ  
DESERT CAHUILLA



MAU-WAL-MAH  
SU-KUTT MENYIL



# Salton Sea Authority- Background



- Purpose
- History
- Governing structure
  - Board
  - TAC
- Organization/staffing



# Salton Sea Authority-Role



- Program management, co-management
- Contract administration
- Project management
- CEQA lead
- Local involvement/ public participation
- Local financing (IFD)



# Other Key Partners

- **USFWS**
  - Bird programs
  - Regulatory/T&E
- **DFG**
  - Fish/bird progs
  - Regulatory/T&E
- **TM**
  - Wetlands
- **Univ of Redlands**
  - GIS/data storage
- **Regional Universities**
  - Adaptive management partners
- **RWQCB**
  - Monitoring
- **Environmental Coalition**
- **State Park**



# Outline

## ■ Introduction

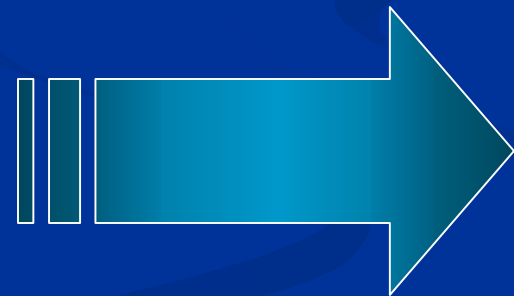
- Who We Are
- **How We Work Together**

## ■ Past Restoration Efforts

- Long term restoration planning
- Science
- Adaptive management-pilot projects
- Public outreach

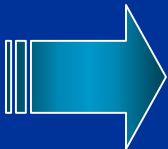
# Our Approach

- Open, public process
- Science based
- Cooperation/Coordination-management
- Learn by doing, Adaptive management



# Our Approach

- **Seamless Management-Funding**
  - **Examples**
- **Competition and targeted research**
  - **Hire best & brightest**
    - RFPs for Science, Planning/NEPA/CEQA, Projects



# Work Program-Approach

## Salton Sea Science Office



Science Advisory  
Committee



## Lead/Management Agencies



## Cooperating Agencies

Torres Martinez Tribe\*  
Fish & Wildlife, USGS,  
BLM, Army Corps  
IB&WC/CILA  
EPA, Cal DWR  
Cal Fish & Game  
Cal-EPA  
IID, CVWD  
County of Imperial  
County of Riverside



## Public Involvement

Public Workshops,  
Environmental Groups,  
Special Task Forces,  
etc.



**Development  
of a Preferred  
Project**

CONSULTANTS

Public  
Involvement

Geotechnical  
Analysis

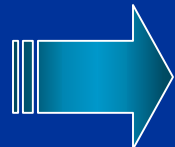
Planning &  
Engineering

BOR STAFF

Partial  
Funding

Some Technical  
Support

Database/GIS/Mapping Support : Redlands Institute



# Agenda

- **Historical Background**
- **Integrated Program: Approach**
- **Past Restoration Efforts**
  - **Long term restoration planning**
  - **Science**
  - **Adaptive management-pilot projects**
  - **Public outreach**

# Restoration Planning History

- Four decades of studies
- 1969 – 1974
  - Federal/State recon. investigation
  - Federal/State feasibility report
- 1993 – Salton Sea Authority formed
- 1996 – Alternatives report
  - 54 alternatives considered
- 1998 – Salton Sea Restoration Act



# Restoration Goals

**'98 Act & Extensive Scoping...5 Goals:**

- **Maintain Sea as Ag Repository**
- **Provide a Safe, Productive Environment for Resident & Migratory Birds & Endangered Species**
- **Restore Recreational Uses**
- **Maintain a Viable Sports Fishery**
- **Enhance Sea to Provide Economic Development Opportunities**

# Specific Objectives & Eval Criteria

- **Selenium, Salinity, Odors, etc.**
- **Evaluation Criteria**
  - **Public Developed**
    - 20 Criteria
    - Ranked by Locals, Resource Agencies
    - Used to Evaluate Alts

# Recent Planning History

## ■ 2000

- Pre-appraisal alternatives report (39 alts)
- Draft EIS (6 alts)
- Strategic Science Plan

## ■ 2001 – 2003

- Alternative refinement
- Assessment of possible reduced inflows

## ■ January 2003

- Department of Interior Status Report

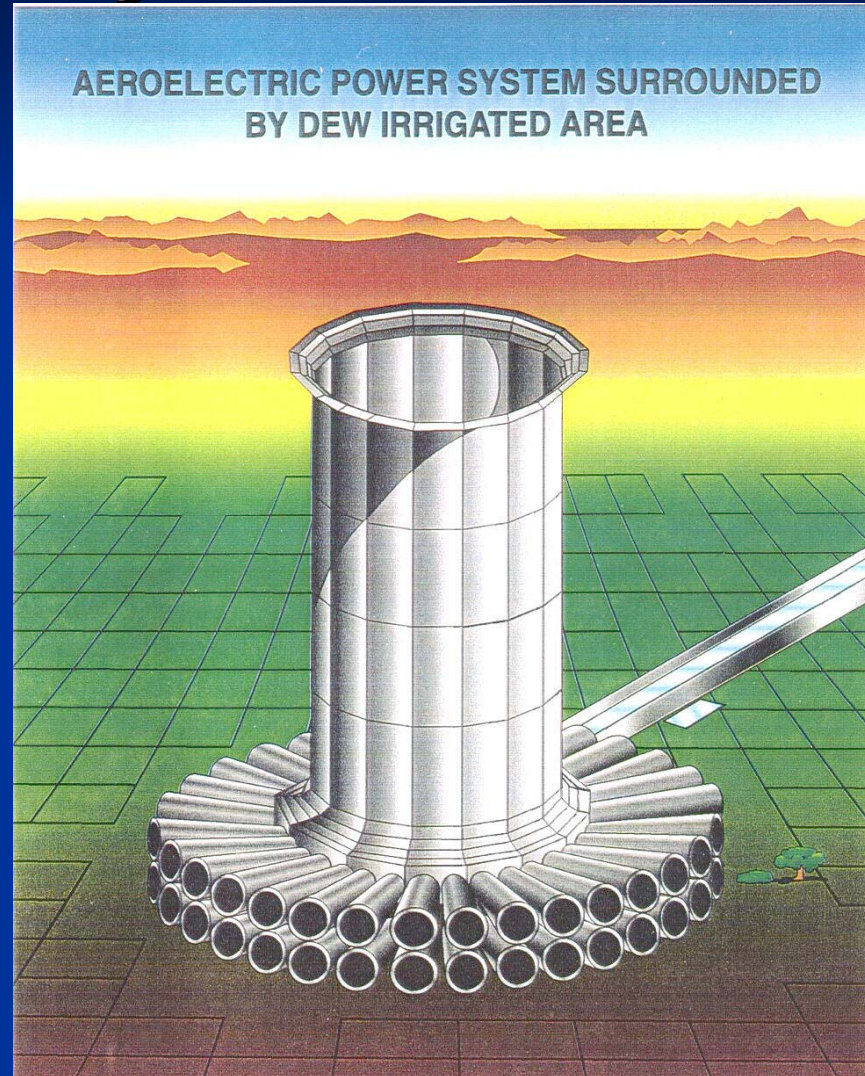


## Funding for the Restoration and Research of the Salton Sea

FY	PROJECT	BY PROJECT	Congressional Appropriations
98	SEA	\$2,000,000	\$2,000,000
	Brawley added	no dollars allocated	
99	SEA	\$800,000	\$800,000
	Brawley	no dollars allocated	
00	SEA	\$1,900,000	\$1,900,000
	Brawley	no dollars allocated	
01	SEA	\$3,000,000	\$4,000,000
	Brawley	\$1,000,000	
02	SEA	\$2,000,000	\$3,500,000
	Brawley	\$1,500,000	
03	SEA	\$1,000,000	\$1,000,000
	Brawley	no dollars allocated	
04	SEA	\$3,000,000	\$4,000,000
	Brawley	\$1,000,000	
	TOTAL SALTON SEA PROJECT		\$17,200,000
	TOTAL WITHOUT BRAWLEY		\$13,700,000

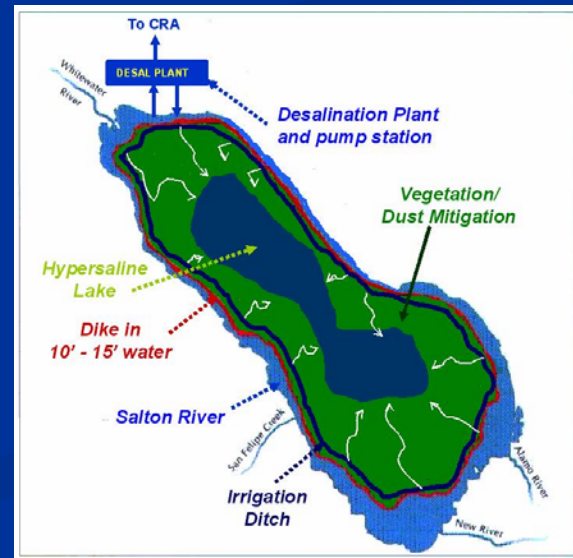
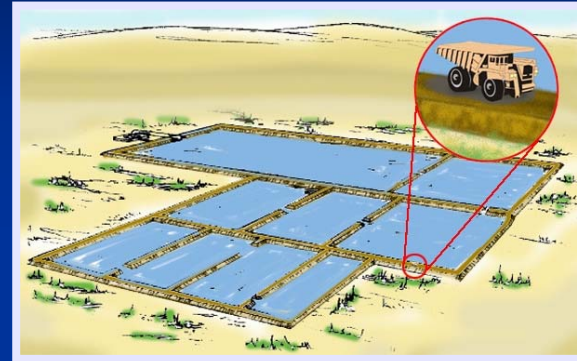


# Many Alternatives...



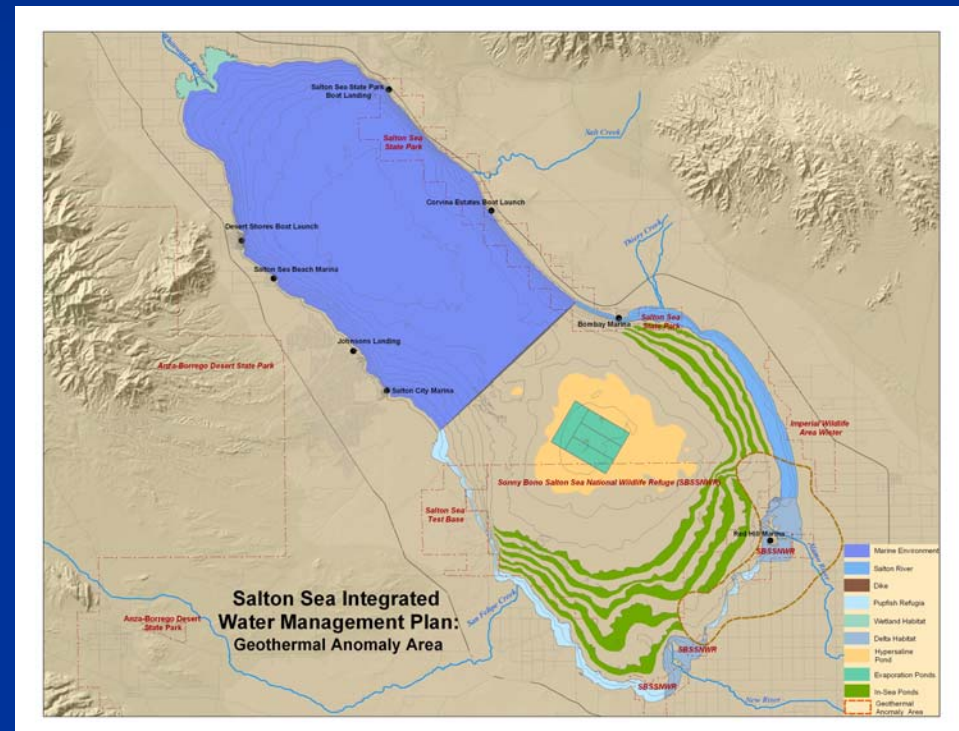
# Long Term Restoration Planning- Recent

- Water transfer uncertainty
  - Links- ponds & fallowing
- Reduced Inflow, Smaller Sea
  - US Filter
  - Focused review led to Salton Lake Concept



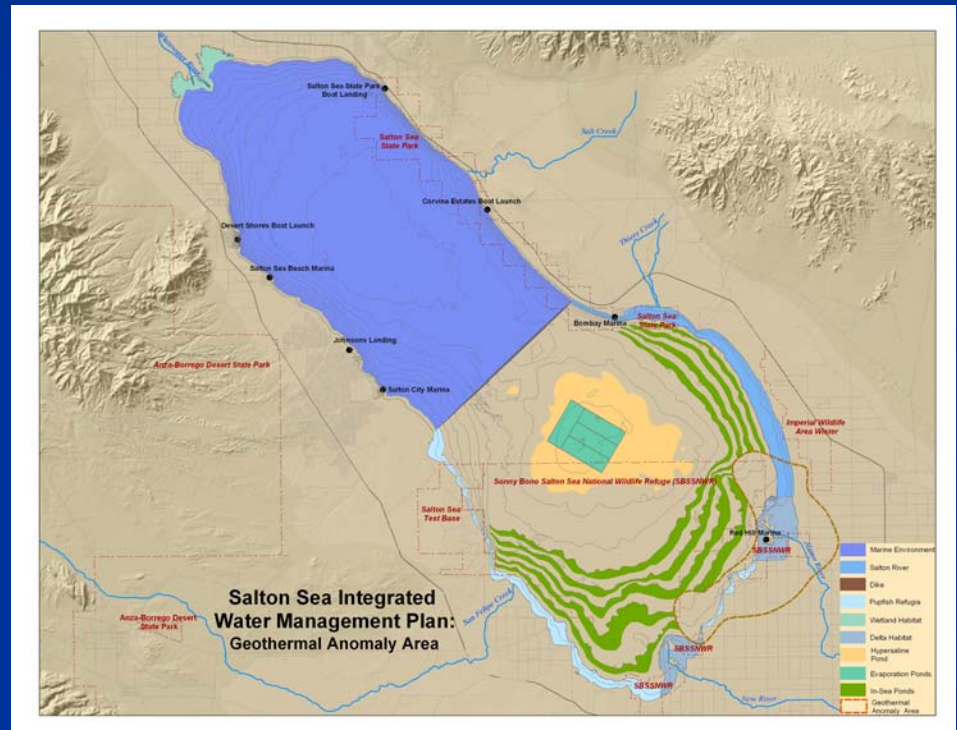
# Long Term Restoration Planning- Recent

- **Components of Salton Lake Plan**
  - **Shallow Water Wetlands**
  - **Air Quality/Dust Mitigation**
  - **Deep Water Fishery**
  - **Water Quality Improvements**



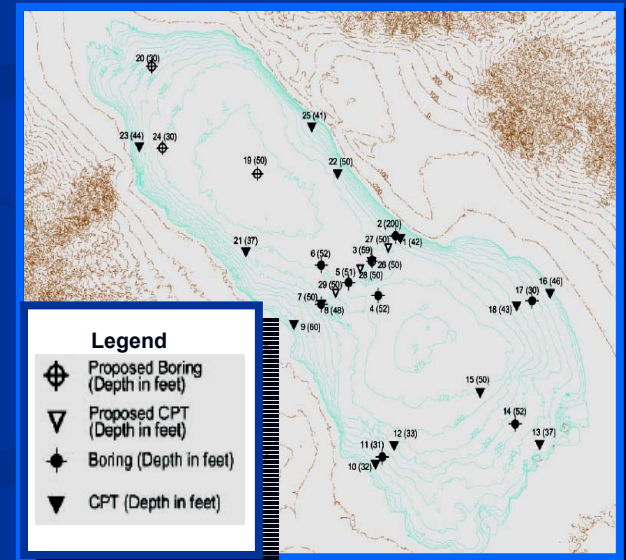
# Long Term Restoration Planning-Recent

- Preferred project-no
- Preferred set of components-yes
- Open minded
- Evaluating variations
  - Dredging (B&V)
  - Barriers



# Long Term Restoration Planning- Recent

- Today: Focused eval.  
& development of  
components:
  - Geotechnical
  - Dike design
  - Shallow water Wetlands
  - Water quality
  - Air quality



# Agenda

- Historical Background
- Integrated Program: Approach
- **Past Restoration Efforts**
  - Long term restoration planning
  - **Science**
  - Adaptive management-pilot projects
  - Public outreach

# Science-1<sup>st</sup> Phase

- Research Needs Workshop
- USGS Tiger Team
- Reconnaissance/  
Baseline  
Information
- Strategic Science  
Plan



# Science: 1<sup>st</sup> Phase-Major Reports

## Major Reports-1<sup>st</sup> Phase Reconnaissance

## Author

Chemical and Physical Limnology of the Salton Sea, California 1999

USBOR

Survey of Selected Microbial Pathogens in the Salton Sea

USGS

Algal Toxin – Final Report

Scripps

Sediment Physical Characteristics and Contaminants at the Salton Sea,  
Riverside and Imperial Counties, California

Levin-Fricke

Abundance, Distribution and Annual Phenology

Point Reyes

Fish Biology and Fish Ecology of the Salton Sea

SDSU

Reconnaissance of the Biological Limnology of the Salton Sea

SDSU

Salton Sea Desert Pupfish Movement Study

USBOR

Ecology and management of avian botulism in fish-eating birds at the  
Salton Sea

USGS

Identification and ecology of disease-causing agents for eared grebes  
at the Salton Sea

USGS

Investigation of the cause of Eared Grebe Mortality at the Salton Sea  
Algal Blooms and Biotoxins

Wright State

The Feeding Ecology of the Salton Sea Tilapia

Barry-Costa

Nutrient Cycling in the Salton Sea

UCR

*Not Complete – final report currently in progress*

Agrarian



# Science Phase 1 Pubs

## Papers:

- Chemical and Physical Characteristics of the Salton Sea, California by G. C. Holdren and A. Montaño
- Chemical evolution of the Salton Sea, California: nutrient and selenium dynamics by R. A. Schroeder, W.H. Orem and Y. K. Kharaka.
- Characteristics and Contaminants of the Salton Sea Sediments by R. Vogl and R. Henry
- Reconstruction of Prehistoric Lake Cahuilla in the Salton Sea Basin using GIS by J.E. Buckles, K. Kashiwase and T. Krantz.
- Simulation of Wind-Driven Circulation in the Salton Sea: Implications for Indigenous Ecosystems by C. B. Cook, G. T. Orlob, and D. W. Huston
- Preliminary studies of cyanobacteria, picoplankton, and virioplankton in the Salton Sea with special attention to phylogenetic diversity among eight strains of filamentous Cyanobacteria by A. M. Wood, S. R. Miller, W.K.W. Li, and R. W. Castenholz
- Flagellate *Cryptobia branchialis* (Bodonida: Kinetoplastida), ectoparasite of tilapia from the Salton Sea by B. I. Kuperman, V. E. Matey & S. B. Barlow
- Metazooplankton dynamics in the Salton Sea, California, 1997-1999 by M. A. Tiffany, B. K. Swan, J. M. Watts and S. H. Hurlbert
- Freelifing nematodes from the Salton Sea by R.M. Warwick, D.M. Dexter & B. Kuperman
- Cryptomonads from The Salton Sea, California by S. B. Barlow & P. Kugrens
- The benthic invertebrates of the Salton Sea: distribution and seasonal dynamics by P. M. Detwiler, M. F. Coe, & D. M. Dexter
- Naked Amoebae (Protozoa) of the Salton Sea, California by A. Rogerson & G. Hauer



# Science Phase 1 Pubs

- The diatom flora of the Salton Sea, California by C. B. Lange & M. A. Tiffany
- Invertebrates of the Salton Sea: A scanning electron microscopy portfolio by B. I. Kuperman, V. E. Matey, D. M. Dexter, and M. A. Tiffany
- Skeletal development in *Hermesinum adriaticum* Zacharias, a flagellate from the Salton Sea, California by M. A. Tiffany
- Summer Movements of Desert Pupfish Among Habitats at the Salton Sea by R. J. Sutton
- Fish Biology and Fisheries Ecology of the Salton Sea, California by R. Riedel, L. Caskey and B. Costa-Pierce
- Biology and migration of eared grebes at the Salton Sea by J. R. Jehl, Jr. and R. McKernan
- The Salton Sea as critical habitat to migratory and resident waterbirds by W. D. Shuford, N. Warnock, K. C. Molina & K. K. Sturm
- Possible Importance of Algal Toxins in the Salton Sea, California by K. M. Reifel, M. P. McCoy, T. E. Rocke, M. A. Tiffany, S. H. Hurlbert & D. J. Faulkner
- Avian disease at the Salton Sea by M. Friend

## Other Scientific Publications:

- The following is a list of other scientific publications resulting from the contracts with the Salton Sea Authority:
- Ralf Riedel and Barry A. Costa-Pierce, The Feeding Ecology of Salton Sea Tilapia (*Oreochromis* spp.). 2003
- Ralf Riedel, Lucille Caskey & Barry A. Costa-Pierce, Fish biology and fisheries ecology of the Salton Sea, California. *Hydrobiologia* 473: 229-244, 2002.



# Science Phase 1 Pubs

- Hauer, G., A. Rogerson, and O.R. Anderson. 2001. *Platyamoeba pseudovannellida* n. sp., a naked amoeba with wide salt tolerance isolated from the Salton Sea, California. *J. Eukaryotic Microbiology* 48: 663-669.
- Kuperman, B. I., and V. E. Matey. 1999. Massive infestation by *Amyloodinium ocellatum* (Dinoflagellida) of fish in a highly saline lake, Salton Sea, California, USA. *Diseases of Aquatic Organisms*. 39:65-73.
- Kuperman, B.I., Matey, V.E., and S.H. Hurlbert. 2001. Parasites of fish from the Salton Sea, California, USA. *Hydrobiologia* 466: 195-208.
- Reifel, K. M., M. P. McCoy, M. A. Tiffany, T. E. Rocke, C. C. Trees, S. B. Barlow, D. J. Faulkner and S. H. Hurlbert. 2001. *Pleurochrysis pseudoroscoffensis* (Prymnesiophyceae) blooms on the surface of the Salton Sea, California. *Hydrobiologia* 466: 177-185.
- Riedel, R. and Costa-Pierce, B. 2001. Review of the fisheries of the Salton Sea, California, USA: past, present, future. *Reviews in Fisheries Science* 9:239-270.
- Riedel, R., D. Schlenk, D. Frank, and B. Costa-Pierce. 2002. Analyses of organic and inorganic contaminants in Salton Sea fish. *Marine Pollution Bulletin* 44: 403-411.
- Sterrenburg, F.A.S., M. A. Tiffany and C. B. Lange. 2000. Studies on the genera *Pleurosigma* and *Gyrosigma* (Bacillariophyceae): Species from the Salton Sea, California (U.S.A.). *Proceedings of the Academy of Natural Sciences of Philadelphia* 150: 305-313.
- Tiffany, M. A., S. B. Barlow, V. E. Matey and S. H. Hurlbert. 2001. *Chattonella marina* (Raphidophyceae), a potentially toxic alga in the Salton Sea, California. *Hydrobiologia* 466:187-194.
- Watts, J. M., B. K. Swan, M. A. Tiffany, and S. H. Hurlbert. 2001. Thermal, mixing, and oxygen regimes of the Salton Sea, California, 1997-1999. *Hydrobiologia* 466:159-176.



# Science Phase 1 Pubs

- Rocke, T.E. and M. Friend. 2003. Wildlife disease as an indicator for ecosystem health. Pages 1111-1124 in *Managing for Healthy Ecosystems*, eds. D.J. Rapport, W.L. Lasley, D.E. Rolston, N.O. Nielsen, C.O. Qualset, and A.B. Damania. Lewis Publishers, Boca Raton, Florida.
- Rocke, T. E., P. Nol, C. Pelizza K. Sturm and. Type C botulism in pelicans and other fish-eating birds at the Salton Sea, California, 1994-2001. In: The ecology and conservation of the avifauna of the Salton Trough. Studies in Avian Biology. Cooper Ornithological Society. In press.
- Williamson, J. L., C. Lowenberger, and T.E. Rocke. Selective isolation of *Clostridium botulinum* DNA from vegetative cells in sediments. Submitted to Journal of Microbiological Methods
- Rocke, T. E. and R. McLean. The impact of disease in white pelicans. In: The ecology and conservation of the American White Pelican. Waterbirds. In press.
- Nol, P., R. E. Brannian, B. M. Berlowski, M. J. Wolcott, and T. E. Rocke. New host record of avian tuberculosis in an American White Pelican (*Pelecanus erythrorhynchus*). California Fish and Game. In Press.
- Nol, P., T.E. Rocke, K. Gross, and T. M. Yuill. Prevalence of neurotoxic *Clostridium botulinum* type C in the gastrointestinal tracts of tilapis (*Oreochromis mosambicus*) in the Salton Sea. Submitted to Journal of Wildlife Diseases
- Nol, P., J. Williamson, T.E. Rocke, and T. M. Yuill. Detection of *Clostridium botulinum* type C cells in the gastrointestinal tracts of Mozambique tilapia (*Oreochromis mosambicus*) by polymerase chain reaction. Submitted to Journal of Wildlife Diseases



# Science Phase 1 Pubs

## **Presentations:**

- **Rocke, T. E. Disease outbreaks in wild birds at the Salton Sea Symposium on Salton Sea Ecosystem Management. January 1999.**
- **Rocke, T. E. and M. Friend. Wildlife disease as an indicator for ecosystem health. International Congress on Ecosystem Health. Sacramento, California. August 1999.**
- **Rocke, T. E., P. Nol, and J. L. Williamson. Avian diseases at Salton Sea. Salton Sea Symposium. Palm Springs, CA January 2002.**
- **Rocke, T. E. and R. McLean. Diseases of Pelicans. Pacific Sea Bird Meeting. Santa Barbara, California. February 2002.**
- **Nol, P., J. L. Williamson, and T. E. Rocke. The epizootiology of avian botulism at the Salton Sea. 2003 Annual Meeting of the Western Division of the American Fisheries Society and California/Nevada Chapter of the American Fisheries Society, San Diego, CA. April 2003.**
- **Williamson J. L. and T. E. Rocke. Present and future studies on the epizootiology of botulism at the Salton Sea National Wildlife Refuge. Interagency Botulism Research Coordinating Committee. Kissimmee, Florida. November 1999.**
- **Nol P., T. E. Rocke, and T. M. Yuill. Epizootiology of type C botulism at Salton Sea. Departmental seminar. University of Wisconsin, Department of Pathobiology, April 2001**
- **Nol, P., T.E. Rocke, and J. L. Williamson. Epizootiology of type C avian botulism at the Salton Sea. Interagency Botulism Research Coordinating Committee. Monterey, California. October 2000.**
- **Nol P., T. E. Rocke, and T. M. Yuill. Epizootiology of type C botulism at Salton Sea. Departmental seminar. University of Wisconsin, Department of Pathobiology, May 2002**



# Science Phase 1 Pubs

- Nol P., T. E. Rocke and K. Gross. Epizootiology of type C botulism at Salton Sea. USGS conference, Wisconsin Dells, WI, July 2002.
- Nol P., T. E. Rocke and K. Gross. Epizootiology of type C botulism at Salton Sea. Wildlife Disease Association Meeting, Humboldt, CA. August 2002.
- Nol P., T. E. Rocke and K. Gross. Epizootiology of type C botulism at Salton Sea. The Wildlife Society Conference, Bismarck, ND. September, 2002.
- Nol P. and T. E. Rocke. Epizootiology of type C botulism at Salton Sea. Interagency Botulism Research Coordinating Committee, Madison, WI. October 2002.
- Williamson, J. L., A. Miyamoto, and T. E. Rocke. The Salton Sea: A Survey for *Clostridium botulinum* type C and E. Interagency Botulism Research Coordinating Committee, Madison, WI. October 2002

## Posters:

- Carmichael, W.W., J. Ott, and R. Li. 2001. The Investigation of the Cause of Eared Grebe Mortality at the Salton Sea: The Role of Cyanotoxins. Proceedings of the 5th International Conference on Toxic Cyanobacteria (ICTC), July 15 – 19, 2001, Noosa, Queensland, Brisbane, Australia (Poster).
- J.L. Ott and W.W. Carmichael. 2001. LC/MS Method Development in the analysis of Hepatotoxic Cyclic Microcystins in animal Tissues. Proceedings of the 5th International Conference on Toxic Cyanobacteria (ICTC), July 15 – 19, 2001, Noosa, Queensland, Brisbane, Australia (Poster).
- Rocke, T. E. and P. Nol. Avian botulism in fish-eating birds at the Salton Sea. Poster session. Salton Sea Symposium. Desert Hot Springs, California. January 2000.
- Nol, P., T. E. Rocke, and J. L. Williamson. Epizootiology of type C avian botulism at the Salton Sea. Poster session. Pacific Sea Bird Meeting. Santa Barbara, California. February 2002.



# Science Phase 1 Pubs

## Theses:

- Pauline Nol. 2002. Epizootiology of type C botulism outbreaks in fish-eating birds at the Salton Sea. M.S. thesis. University of Wisconsin-Madison.
- Amy Miyamoto. 2002. Relationship between environmental factors, the *Clostridium botulinum* type C toxin gene, and avian botulism. M.S. thesis. University of California, Riverside.



# Science-1<sup>st</sup> Phase

## ■ Funding

### ■ Approach

### ■ SSA - \$5M appropriation

- Put money on table, no strings
- Turned over prioritization to scientists (SSC)
- Turned over recommendations to RMC
  - RMC: SSA, DOI, TM, State, Univ.



# Science-2<sup>nd</sup> Phase

- **Focused Support & Analysis**
- **Need Identified**
  - **Scientists**
  - **Management**
  - **Public**
- **Approach**
  - **Workshops**
    - **Cajole/Retain Best & Brightest**
  - **Whitepapers**



# Issue Specific Support & Analysis

- Salt Precipitation
- Eutrophication
- Air quality
- Selenium



# Issue Specific Support & Analysis

## ■ Salt Precipitation

- Workshop
- Multi-team analysis
- Developed model



# Issue Specific Support & Analysis

- Salt Precipitation
- Eutrophication
  - Workshop
  - Multi-team analysis
  - Pilot project



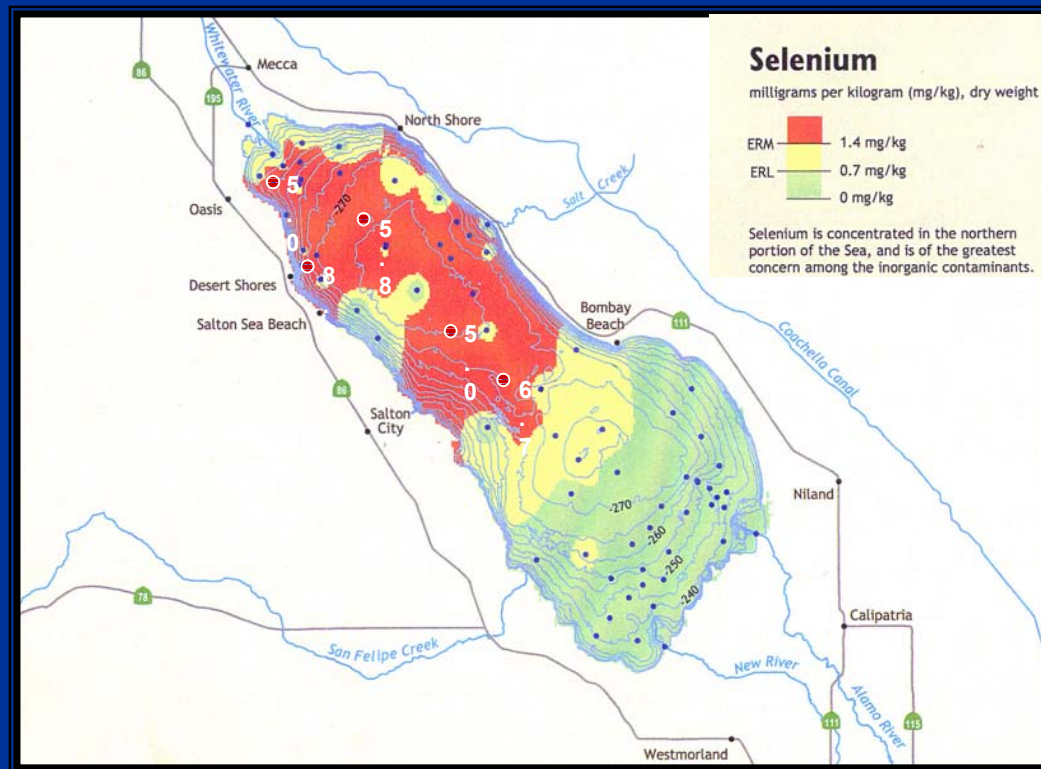
# Issue Specific Support & Analysis

- Salt Precipitation
- Eutrophication
- Air Quality



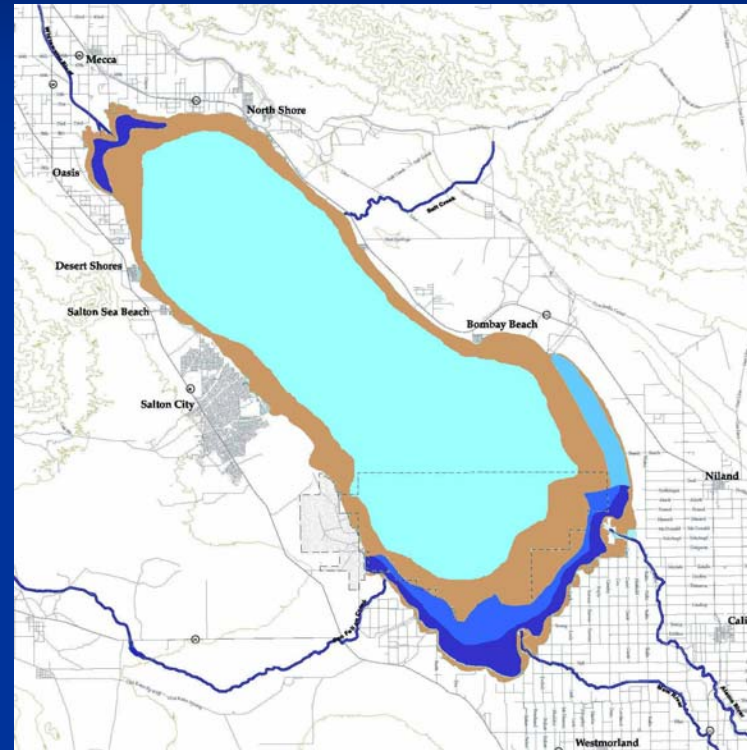
# Issue Specific Support & Analysis

- Salt Precipitation
- Eutrophication
- Air Quality
- **Selenium**



# Issue Specific Support & Analysis

- **Specific Alts Evaluation**
  - Pacific Institute
  - US Filter, Salton Lake



*Pacific Institute Proposal*



# Science-2<sup>nd</sup> Phase

## ■ Funding

- Another Example of Intergovernmental Cooperation
- BOR Support of Science Office Air Quality Assessments
  - Unconditional
  - Scientists Make “the call”



# Agenda

- Historical Background
- Integrated Program: Approach
- **Past Restoration Efforts**
  - Long term restoration planning
  - Science
  - **Adaptive management-pilot projects**
  - Public outreach

# Adaptive Management

- Learn By Doing
- Course Corrections



# Adaptive Management- Salt Management



# Adaptive Management- Salt Management



# Adaptive Management- Water Quality



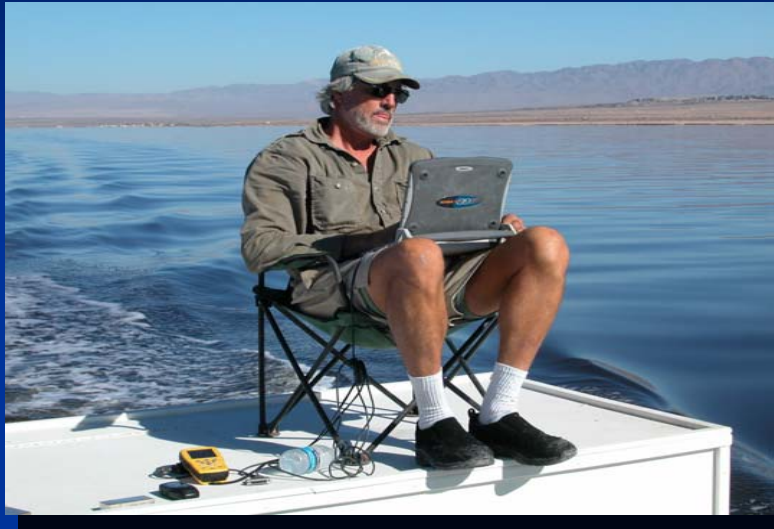
**Water Quality Control/  
Nutrient Reduction  
Pilot Project**



# Adaptive Management Water Quality/Wetlands



# Other Management-Fishery Management



# Other Management-Birds



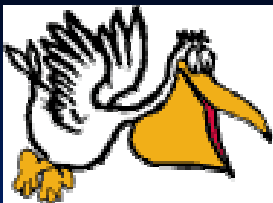
# Other Management-Birds

- **Success story**
- **1996 vs. today**
- **Intergovernmental**
  - **USFWS, SSA, CDFG**
- **Science-management**
  - **Madison Health Center-USFWS**



# Agenda

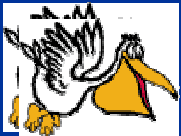
- Historical Background
- Integrated Program: Approach
- **Past Restoration Efforts**
  - Long term restoration planning
  - Science
  - Adaptive management-pilot projects
  - **Public outreach**



# Public Outreach



# Public Outreach



# Public Outreach

- Speaker, Sonny Bono Salton Sea National Wildlife Refuge Dedication, May 1999
- Speaker, Salton Sea International Bird Festival, February 2000
- Speaker, CA Regional Water Quality Control Board, June 2000
- Speaker, Coachella Valley Economic Partnership, July 2000
- Speaker, Urban Water Conference, August 2000
- Speaker, Best, Best & Krieger, August 2000
- Speaker, Chapman University, Orange County, CA, September 2000
- Speaker, College of the Desert, Palm Desert, CA, October 2000
- Speaker, Audubon, April 2001
- Speaker, Farm Bureau, May 2001
- Speaker, Imperial Valley Press, May 2001
- Speaker, Palm Springs City Council, May 2001
- Speaker, Palm Desert City Council, June 2001
- Speaker, Desert Sands Unified School District, June 2001
- Speaker, La Quinta City Council, June 2001
- Speaker, Chamber of Commerce Leadership, June 2001
- Speaker, Congressional Salton Sea Task Force, July 2001
- Speaker, CAL EPA & Resources Agency, July 2001
- Speaker, Urban Water Institute, August 2001
- Speaker, Cathedral City Council, October 2001
- Speaker, San Diego Historical Society Museum, November 2001
- Speaker, El Centro Kiwanis, November 2001
- Speaker, Imperial Valley Economic Development Corporation, November 2001
- Speaker, Brawley Kiwanis, November 2001
- Speaker, Brawley City Council, November 2001



# Public Outreach

- Speaker, Brawley City Council, November 2001
- Speaker, Brawley Rotary, November 2001
- Speaker, Association of CA Water Agencies, November 2001
- Speaker, Brawley Chamber of Commerce, November 2001
- Guest, Ira Laufer Show, Time Warner Cable, December 2001
- Speaker, Joint Chambers of Commerce, Imperial County, December 2001
- Speaker, City of Brawley, December 2001
- Speaker, El Centro Rotary, December 2001
- Speaker, Colorado River Water Users Meeting, December 2001
- Speaker, Salton Sea Symposium, January 2002
- Speaker, Palm Desert Library Lecture Series, January 2002
- Speaker, Water Education Foundation Symposium, January 2002
- Speaker, University of Redlands, February 2002
- Speaker, College of the Desert, Palm Desert, CA, February 2002
- Speaker, Coachella Valley Association of Governments, February 2002
- Speaker, Environmental Tour & Workshop, February 2002
- Guest, Ira Laufer Show, Time Warner Cable, March 2002
- Speaker, Water Education Foundation, March 2002
- Speaker, Indian Wells Rotary, March 2002
- Speaker, Society of American Foresters, April 2002
- Participant, State Water Resource Control Board Hearing: IID/SDCWA Water Transfer, May 2002
- Guest, Marshall Gilbert Show, Palm Springs, May 2002
- Speaker, Palm Springs Rotary, June 2002
- Speaker, Coachella Valley Leadership, June 2002
- Participant, Subcommittee on Water & Power of the US House of Representatives Committee on Resources, June 2002



# Public Outreach

- Speaker, CA State University, San Bernardino, Water Resources Institute, June 2002
- Speaker, La Quinta Rotary, June 2002
- Speaker, Water Education Foundation Bus Tour, June 2002
- Speaker, Water Advisory Committee, July 2002
- Speaker, Water Education Foundation, July 2002
- Speaker, Metropolitan Water District, August 2002
- Speaker, Palm Springs Realtors Association, September 2002
- Speaker, Desert Attorney's Meeting, September 2002
- Speaker, El Centro Rotary, September 2002
- Speaker, Cathedral City Council, September 2002
- Speaker, Reason Foundation, September 2002
- Speaker, CA Special Districts Section of Association of CA Water Association, September 2002
- Speaker, CA Water & Law Policy, October 2002
- Speaker, Coachella Valley Association of Governments, October 2002
- Speaker, Sierra Club – Tahquitz Group, November 2002
- Speaker, Association of CA Water Agencies, November 2002
- Speaker, Riverside County Board of Supervisors, November 2002
- Speaker, La Quinta Soroptimists, November 2002
- Speaker, East Valley Republican Woman Federation, December 2002
- Speaker, Colorado River Water Users Association, December 2002
- Speaker, American Birding Association, January 2003
- Speaker, CA Irrigation Institute, January 2003
- Speaker, Sun City Nature Club, February 2003
- Speaker, Salton Sea International Bird Festival, February 2003



# Public Outreach

- Speaker, Metropolitan Water District, March 2003
- Guest, The Talking Stick, Cabezon Band of Mission Indians, March 2003
- Speaker, Salton Sea Environmental Coalition, March 2003
- Speaker, San Diego County Water Authority, May 2003
- Guest, Ira Laufer Show, Time Warner Cable, May 2003
- Speaker, Audubon, May 2003
- Speaker, Metropolitan Water District, May 2003
- Speaker, Leadership Coachella Valley, June 2003
- Speaker, Imperial County Board of Supervisors, June 2003
- Speaker, La Quinta Rotary, July 2003
- Speaker, Torres Martinez Desert Cahuilla Tribe, July 2003
- Speaker, Santa Ana Watershed Project, August 2003
- Speaker, Imperial Irrigation District Board of Directors, August 2003
- Speaker, Urban Water Institute, August 2003
- Speaker, Palm Springs Realtors Association, September 2003
- Speaker, Imperial Valley Chamber of Commerce, September 2003
- Speaker, El Centro Rotary, September 2003
- Speaker, Metropolitan Water District of Orange County, September 2003
- Speaker, Palm Springs Rotary, September 2003
- Speaker, Brawley City Council, September 2003
- Speaker, Southern CA Water Dialogue, September 2003
- Speaker, Water Education Foundation, September 2003
- Speaker, Indio Rotary, October 2003
- Guest, KPBS Radio Show, October 2003
- Speaker, Imperial League of Cities, October 2003

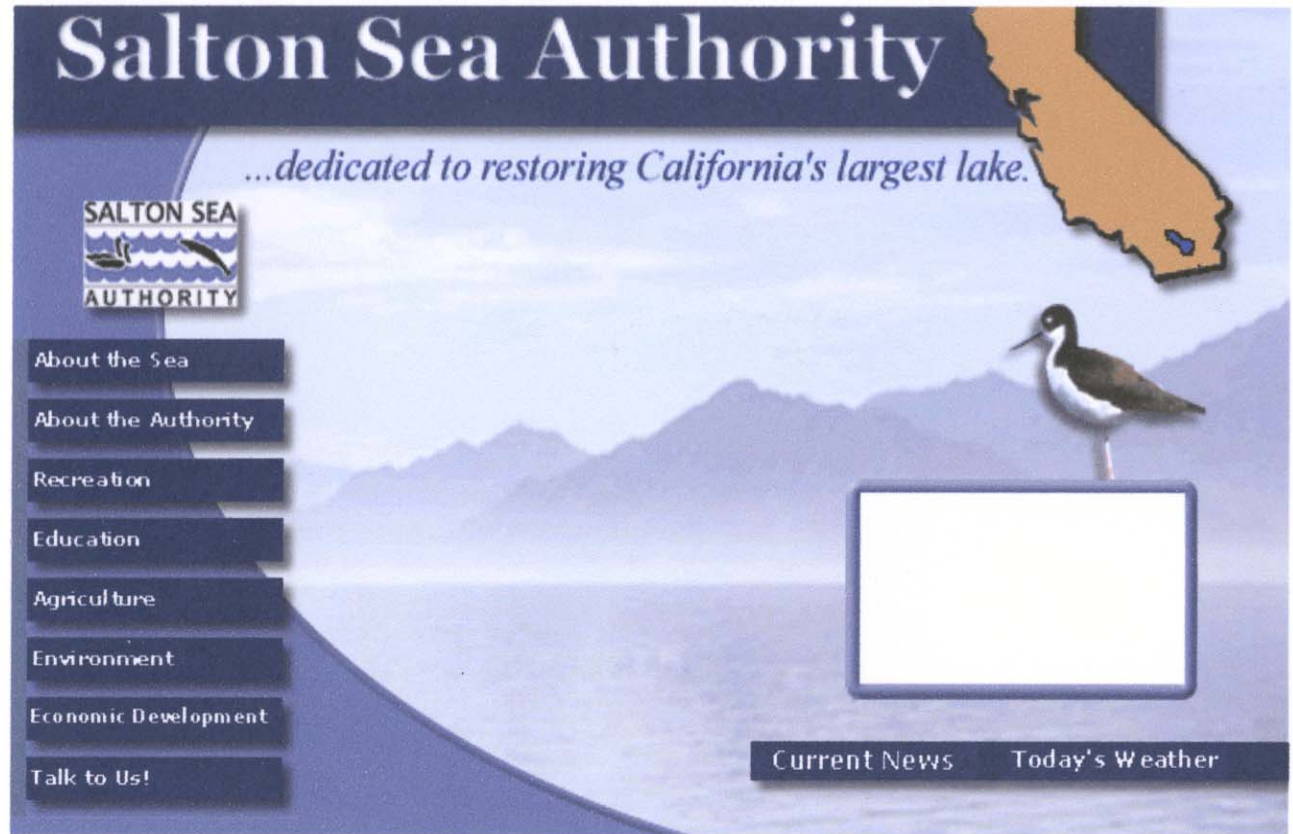


# Public Outreach





# Public Outreach



[www.saltonsea.ca.gov](http://www.saltonsea.ca.gov)

# Public Outreach



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## Welcome to the Bureau of Reclamation's Salton Sea Restoration Project Office

Joining state and local agencies in an effort to address the environmental issues of the Salton Sea.



### About Us

Read about how the Bureau of Reclamation, Salton Sea Authority and other agencies are working together to address the resource's environmental issues.



### Public Information Materials

The clearinghouse for documents, meeting notes and other materials related to the cooperative efforts to save the Sea.



### Current RFPs

Check out active opportunities for businesses to become involved in restoration studies, data-gathering, research and other activities.



### Site Index

Lost? Maybe our site index can help you out.



### News and Photos

Find out the latest happenings or download photos from our Photo Gallery.



### Science/Environmental Documents

You'll find it here...studies, Environmental Impact Statements, science reports and workshop summaries developed by Reclamation, the Salton Sea Science Office, and the Salton Sea Authority.



### Links

There's more info out there...here are a few sites to help you get around.



### Contact Us

Let us know how we're doing or direct your questions here.

Search for

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(Salton Sea pages only)

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# Public Outreach

**Salton Sea Symposia: 1998, 2000, 2002**



# What We Have Not Covered

- **Current & Planned Activities**
  - **Water Quality**
  - **Air Quality**
  - **Geotechnical**
  - **Financial**
  - **Public Outreach**
  - **Development of Preferred Project**

# **Salton Sea Restoration**

- **Questions**
- **Reference Material**